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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,776	09/06/2006	Tony Whittaker	WW/3-22354/A/PCT	4488

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EXAMINER	
HRUSKOCI, PETER A	

ART UNIT	PAPER NUMBER
1797	

NOTIFICATION DATE	DELIVERY MODE
08/24/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/591,776	WHITTAKER ET AL.	
	Examiner	Art Unit	
	/Peter A. Hruskoci/	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 May 2009 and 08 July 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,4,6,7,9 and 11-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,4,6,7,9 and 11-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 6, 7, 9, 11, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Sorensen et al. 5,846,433. It is submitted that Sorensen et al. disclose (see col. 7 line 3 through col. 8 line 17) a process of thickening and dewatering a sewage sludge suspension utilizing a second flocculant comprising dry particles as recited in the instant claims.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3, 4, 6, 7, 9, and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sorensen et al. 5,846,433 in view of Ghafoor et al.6,001,920. Sorensen et al. (see col. 7 line 3 through col. 8 line 17) disclose a process of dewatering a sewage sludge suspension substantially as claimed. The claims differ from Sorensen et al. by reciting the second flocculant has a specific polymer concentration by weight. Ghafoor et al. disclose (see col. 1 line 16 through col. 6 line 36) that it is known in the art to utilize a flocculant composition having a concentration of 5% by weight, to aid in flocculating sludge suspensions. It would have been obvious to one skilled in the art to modify the process of Sorensen et al. by utilizing the recited concentration in view of the teachings of Ghafoor et al., to aid in flocculating and dewatering the suspension. The specific concentration and second flocculants utilized, would have been an obvious matter of process optimization to one skilled in the art, depending on the

specific sludge treated and results desired, absent a sufficient showing of unexpected results.

With regard to claims 12 and 13, it is submitted that Ghafoor et al. as applied above, appears to teach the use of a slurry of flocculant and polyethylene glycol.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 3 , 4, 6, 7, 9, 11, and 14 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 10/591,777. Although the conflicting claims are not identical, they are not patentably distinct from each other because the process steps recited in the instant claims appear to be fully encompassed by the process steps recited in the claims of the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 12 and 13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 10/591,777 in view of Ghafoor et al. 6,001,920. The claims differ from the claims of the copending application et al. by reciting the second flocculant is introduced in the form of a slurry in a liquid, and the liquid in the slurry is polyethylene glycol. Ghafoor et al. appears to disclose (see col. 1 line 16 through col. 6 line 36) that it is known in the art to utilize a flocculant composition including a slurry of flocculant and polyethylene glycol, to aid in flocculating sludge suspensions. It would have been obvious to one skilled in the art to modify the process of recited in the claims of the copending application by utilizing the recited slurry in view of the teachings of Ghafoor et al., to aid in flocculating and dewatering the suspension.

This is a provisional obviousness-type double patenting rejection.

Claims 1, 3, 6, 7, 9, and 11-14 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15, 18, and 19 of copending Application No. 10/591,878. Although the conflicting claims are not identical, they are not patentably distinct from each other because the process steps recited in the instant claims appear to be fully encompassed by the process steps recited in the claims of the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicants allege that the cross-linked particles disclosed in Sorensen et al. would not be mixed into the suspension in the form of dry particles as recited in instant claim 1. It does not appear that the teachings of Sorensen et al. as applied above, exclude the use of substantially dry

particles. It would appear that the flocculant polymer particles utilized in the teachings of Sorensen et al. as applied above, would include substantially dry particles, patentably indistinguishable from the dry particles recited in claim 1, since it is well known in the art of water treatment to utilize flocculant polymers in the form of aqueous solutions, emulsions, or dry particles. Furthermore, applicants have not provided sufficient factual evidence to support the above allegation.

Applicants argue that Sorensen et al. does not disclose flocculant solutions as high as 2 % as in the instant process. It is noted that instant claim 1 is drawn to a flocculant polymer concentration of at least 2% by weight. It is submitted that Ghafoor et al. was used to teach that it is known in the art to utilize a flocculant composition having a concentration of 5% by weight, to aid in flocculating sludge suspensions.

Applicants argue that the present application requires that the first additive is a flocculant whereas the first additive in Sorensen et al. is a coagulant having a very low molecular weight. It is submitted that the molecular weight of the first flocculant is not recited in the instant claims. It is further submitted that the cationic polymer coagulants disclosed in Sorensen et al. are considered patentably indistinguishable from the first flocculant recited in the instant claims. It is noted instant claims fail to exclude coagulation by charge neutralization, or to include a bridging mechanism.

Applicants argue that Sorensen et al. does not disclose a thickening step between the addition of the two flocculants as in the instant process. Applicants are directed to col. 3 lines 15-22 of Sorensen et al. which teaches the use of a thickening process to produce a thickened sludge, and a mechanical dewatering process to produce a cake. It would appear that the

addition of the cationic polymer coagulant as in Sorensen et al. would form a thickened suspension as recited in instant claim 1.

Applicants argue that it is impossible to determine the concentration of only the flocculant in Ghafoor from a combined concentration of both flocculant and coagulant of 5% because Ghafoor does not appear to identify specifically the concentration of flocculant. It is submitted that Ghafoor discloses in col. 5 lines 34-37 that the weight ratio of high IV polymer or flocculant to coagulant polymer in the composition can be 1 to 0.15. It would appear that this weight ratio would include the use of a flocculant having a polymer concentration of at least 2%, when the composition of Ghafoor is 5% by weight.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Peter A. Hruskoci/ whose telephone number is (571) 272-1160. The examiner can normally be reached on Monday through Friday from 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter A. Hruskoci/
Primary Examiner
Art Unit 1797

8/18/09